Amendments to the Claims:

This listing will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Withdrawn) A polymer comprising structural units having the formula:

wherein:

A is a tertiary arylamine charge transport moiety;

X is a divalent bridging moiety;

Y is a divalent bridging moiety;

R' and R' are independently hydrogen or a C₁₋₄ alkyl;

G is independently a hydrolyzable group;

 R^{3} is independently a C_{1-18} alkyl, a C_{1-10} fluoroalkyl, or a C_{6-12} substituted or unsubstituted aryl;

c is an integer from 1 to 3;

d is 0 or 1;

a is a mole fraction of from about 0.01 to about 0.99;

b is a mole fraction of from about 0.99 to about 0.01; and

a + b is 1.00 or less.

2. (Withdrawn) The polymer of Claim 1 wherein the tertiary amine charge transport group has an oxidation potential of from about 0.6 to about 1.2 volts versus a standard calomel electrode.

3. (Withdrawn) The polymer of Claim 1 wherein A is selected from the group consisting of:

$$R_1$$
 R_2
 R_1
 R_2
 R_1
 R_2
 R_1
 R_2

$$R_3$$
 R_4
 R_5

$$R_1$$
 R_2 R_2

$$R_3$$
 R_4
 R_5
 R_5
 R_1
 R_2

$$R_1$$
 R_2
 R_4
 R_5
 R_3

CTM VI

$$R_4$$
 R_3
 R_1
 R_2

 R_1 R_3

CTM VII

CTM VIII

$$R_1$$
 R_2

CTM IX

стм х

CTM XI

CTM XII

$$R_3$$
 R_4 R_2 R_1

$$R_3$$
 R_4 R_5

CTM XIII

CTM XIV

$$R_1$$
 R_2 R_3

CTM XV

CTM XVI

$$R_1$$
 R_2
 R_3

$$R_1$$

CTM XVII

CTM XVIII

$$R_1$$
 R_2
 R_1
 R_2
 R_1
 R_1
 R_2
 R_2
 R_3
 R_2
 R_3
 R_2
 R_3
 R_2
 R_3
 R_2
 R_3
 R_2
 R_3
 R_2

wherein R₁, R₂, R₃, R₄ and R₅ are independently in each CTM structure selected from hydrogen, an alkyl group having 1 to about 6 carbon atoms, or an alkoxy group having 1 to about 6 carbon atoms.

- 4. (Withdrawn) The polymer of Claim 1 wherein d is 1.
- 5. (Withdrawn) The polymer of Claim 4 wherein X is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; or combinations thereof.
- 6. (Withdrawn) The polymer of Claim 1 wherein Y is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; or combinations thereof.

- 7. (Withdrawn) The polymer of Claim 1 wherein a is from about 0.1 to about 0.9.
- 8. (Withdrawn) The polymer of Claim 1 wherein a is from about 0.15 to about 0.85.
- 9. (Withdrawn) The polymer of Claim 1 wherein a is from about 0.25 to about 0.8.
 - 10. (Withdrawn) The polymer of Claim 1 wherein c is 2.
 - 11. (Withdrawn) The polymer of Claim 1 wherein c is 3.
- 12. (Withdrawn) The polymer of Claim 1 wherein R' and R' are independently hydrogen or methyl.
 - 13. (Withdrawn) The polymer of Claim 11 wherein G is methoxy.
 - 14. Cancelled.
- 15. (Withdrawn) The polymer of Claim 1 wherein G is selected from halogen, hydroxyl, or C_{1-6} alkoxy groups.
- 16. (Currently Amended) A silsesquioxane comprising the condensed reaction product of a charge transport polymer comprising structural units having the formula:

wherein:

A is a tertiary arylamine charge transport moiety;

X is a divalent bridging moiety;

Y is a divalent bridging moiety;

 R^{1} and R^{2} are independently hydrogen or a C_{14} alkyl;

G is independently a hydrolyzable group;

 R^{3} is independently a C_{1-18} alkyl, a C_{1-10} fluoroalkyl, or a C_{6-12} substituted or unsubstituted aryl;

c is an integer from 1 to 3;

d is 0 or 1;

a is a mole fraction of from about 0.01 to about 0.99;

b is a mole fraction of from about 0.99 to about 0.01; and

a + b is 1.00 or less, and

from about 5 to 30 weight percent of <u>basic surface charge</u> colloidal silica based on the weight of the charge transport polymer <u>silsesquioxane</u>, with optionally at least one additional silane monomer having at least one hydrolyzable group thereon.

- 17. (Original) The silsesquioxane of Claim 16 wherein G is selected from halogen, hydroxyl, or C₁₋₆ alkoxy groups.
- 18. (Original) The silsesquioxane of Claim 16 wherein the tertiary amine charge transport group has an oxidation potential of from about 0.6 to about 1.2 volts versus a standard calomel electrode.
- 19. (Previously Presented) The silsesquioxane of Claim 16 wherein A is selected from the group consisting of:

$$R_1$$
 R_2

СТМІ

$$R_1$$
 R_2

CTM II

$$R_3$$
 R_4
 R_5

CTM III

$$R_1$$
 R_2
 R_3
 R_4

CTM IV

$$R_3$$
 R_4
 R_5
 R_5
 R_1
 R_2

CTM V

$$R_{1}$$
 R_{2}
 R_{4}
 R_{5}
 R_{3}

CTM VI

$$R_1$$
 R_2 R_3

$$R_1$$
 R_2
 R_3

CTM VII

$$R_1$$
 R_2

CTM IX

CTM X

CTM XI

CTM XII

$$R_3$$
 R_4 R_2 R_1

$$R_3$$
 R_4 R_5

CTM XIII

CTM XIV

$$R_1$$
 R_2 R_3

$$F$$
 R_1

CTM XV

CTM XVI

$$R_1$$
 R_2 R_3

$$R_1$$

CTM XVII

CTM XVIII

wherein R₁, R₂, R₃, R₄ and R₅ are independently in each CTM structure selected from hydrogen, an alkyl group having 1 to about 6 carbon atoms, or an alkoxy group having 1 to about 6 carbon atoms.

- 20. (Original) The silsesquioxane of Claim 16 wherein d is 1.
- 21. (Previously Presented) The silsesquioxane of Claim 20 wherein X is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; and combinations thereof.
- 22. (Previously Presented) The silsesquioxane of Claim 16 wherein Y is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; and combinations thereof.

- 23. (Original) The silsesquioxane of Claim 16 wherein a is from about 0.1 to about 0.9.
- 24. (Original) The silsesquioxane of Claim 16 wherein a is from about 0.15 to about 0.85.
- 25. (Original) The silsesquioxane of Claim 16 wherein a is from about 0.25 to about 0.8.
 - 26. (Withdrawn) The silsesquioxane of Claim 16 wherein c is 2.
 - 27. (Original) The silsesquioxane of Claim 16 wherein c is 3.
- 28. (Original) The silsesquioxane of Claim 16 wherein R' and R' are independently hydrogen or methyl.
 - 29. (Original) The silsesquioxane of Claim 27 wherein G is methoxy.
- 30. (Original) The silsesquioxane of Claim 16 wherein the optional at least one additional silane monomer is present.
- 31. (Original) The silsesquioxane of Claim 30 wherein the at least one silane monomer is an alkyltrialkoxysilane corresponding to the formula:

$$R^1$$
-Si-(OR 2)₃

wherein:

R¹ is an aliphatic, cycloaliphatic, or aromatic group containing 1 to about 12 carbon atoms, and

R² is an alkyl group containing 1 to about 6 carbon atoms.

- 32. (Previously Presented) The silsesquioxane of Claim 31 wherein R¹ is selected from the group consisting of alkyls containing up to about 18 carbon atoms, fluoroalkyl containing up to about 18 carbon atoms, cycloalkyl containing 5 to about 12 carbon atoms, and aryl containing 6 to about 12 carbon atoms.
- 33. (Original) The silsesquioxane of Claim 31 wherein R¹ is an alkyl group containing 1 to about 3 carbon atoms.
- 34. (Original) The silsesquioxane of Claim 31 wherein R¹ is a methyl group.
- 35. (Original) The silsesquioxane of Claim 30 wherein the at least one additional silane monomer is methyltrimethoxysilane.
- 36. (Original) The silsesquioxane of Claim 16 wherein the silsesquioxane is prepared in a polar solvent medium.
- 37. (Previously Presented) The silsesquioxane of Claim 36 wherein the polar solvent medium_comprises water.
- 38. (Previously Presented) The silsesquioxane of Claim 37 wherein the polar solvent medium further comprises a water-miscible organic solvent.
- 39. (Original) The silsesquioxane of Claim 38 wherein said water-miscible organic solvent is selected from the group consisting of methanol, ethanol, isopropyl alcohol, methyl isobutyl ketone, and mixtures thereof.
- 40. (Withdrawn) A polymer comprising the polymerized reaction product of:
- a) at least one vinyl-substituted, tertiary arylamine monomer having the general formula:

$$A_1 - N A_2$$

wherein:

 A_1 , A_2 and A_3 are independently a C_{1-6} alkyl or C_{6-50} substituted or unsubstituted aryl group, with the proviso that at least one of A_1 , A_2 and A_3 is an aryl group substituted with a vinyl group having the formula $CH_2=C(R)-(X)_d$,

where:

R is hydrogen or a C₁₋₄ alkyl; X is a divalent bridging moiety; and d is 0 or 1, with

b) at least one vinyl-substituted silane monomer having the formula:

$$CH_2 = C(R) - Y - S:$$
 $(G)_c$

wherein:

R is hydrogen or a C₁₋₄ alkyl;

Y is a divalent bridging moiety;

 B_1 is independently a C_{1-18} alkyl, a C_{1-10} fluoroalkyl, or a C_{6-12} substituted or unsubstituted aryl;

G is independently a hydrolyzable group; and c is an integer from 1 to 3.

- 41. (Withdrawn) The polymer of Claim 40 wherein G is selected from halogen, hydroxyl; or C₁₋₆ alkoxy groups.
 - 42. (Withdrawn) The polymer of Claim 40 wherein d is 1.

- 43. (Withdrawn) The polymer of Claim 42 wherein X is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; or combinations thereof.
- 44. (Withdrawn) The polymer of Claim 40 wherein Y is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; or combinations thereof.
- 45. (Withdrawn) The polymer of Claim 40 wherein the vinyl-substituted tertiary aryl amine is selected from the group consisting of:

$$R_3$$
 R_4
 R_5
 R_5
 R_1
 R_2

$$R_1$$
 R_2
 R_4
 R_5
 R_3

CTM V

CTM VI

$$R_1$$
 R_2
 R_3

$$R_1$$
 R_2
 R_3

CTM VII

CTM VIII

$$R_1$$
 R_2

CTM IX

CTM X

$$R_2$$
 N
 CH
 CH
 R_3

CTM XI

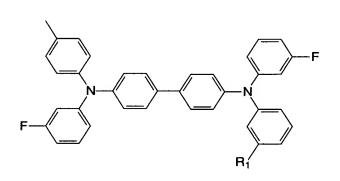
CTM XII

$$R_3$$
 R_4 R_2 R_1

$$R_3$$
 R_4 R_5

CTM XIII

CTM XIV



CTM XV

CTM XVI

and mixtures thereof, wherein R₁, R₂, R₃, R₄ and R₅ are independently in each CTM structure selected from hydrogen, an alkyl group having 1 to about 6 carbon atoms, or an alkoxy group having 1 to about 6 carbon atoms.

CTM XXI

- 46. (Withdrawn) The polymer of Claim 40 wherein the amount of the at least one vinyl-substituted, tertiary arylamine monomer is from about 10 mol% to about 90 mol% based on total moles of the at least one vinyl-substituted, tertiary arylamine monomer and the at least one vinyl-substituted alkoxysilane monomer.
- 47. (Withdrawn) The polymer of Claim 40 wherein the amount of the at least one vinyl-substituted, tertiary arylamine monomer is from about 15 mol% to about 85 mol% based on total moles of the at least one vinyl-substituted, tertiary arylamine monomer and the at least one vinyl-substituted alkoxysilane monomer.
- 48. (Withdrawn) The polymer of Claim 40 wherein the amount of the at least one vinyl-substituted, tertiary arylamine monomer is from about 25 mol% to about 80 mol% based on total moles of the at least one vinyl-substituted, tertiary arylamine monomer and the at least one vinyl-substituted alkoxysilane monomer.
 - 49. (Withdrawn) The polymer of Claim 40 wherein c is 2.
 - 50. (Withdrawn) The polymer of Claim 40 wherein c is 3.
 - 51. (Withdrawn) The polymer of Claim 40 wherein G is methoxy.
 - 52. Cancelled.
- 53. (Withdrawn) A polymer comprising the polymerized reaction product of at least one vinyl-substituted, tertiary arylamine monomer and at least one vinyl-substituted silane monomer.
- 54. (Currently Amended) An electrophotographic element comprising: an electrically conducting layer; a charge generating layer overlying said electrically conducting layer; and

a first charge transport layer overlying said electrically conducting layer, said first charge transport layer comprising a silsesquioxane of the condensed reaction product of a charge transport polymer comprising structural units having the formula:

wherein:

A is a tertiary arylamine charge transport moiety;

X is a divalent bridging moiety;

Y is a divalent bridging moiety;

 R^{1} and R^{2} are independently hydrogen or a C_{1-4} alkyl;

G is independently a hydrolyzable group;

 R^{3} is independently a C_{1-18} alkyl, a C_{1-10} fluoroalkyl, or a C_{6-12} substituted or unsubstituted aryl;

c is an integer from 1 to 3;

d is 0 or 1;

a is a mole fraction of from about 0.01 to about 0.99;

b is a mole fraction of from about 0.99 to about 0.01; and

a + b is 1.00 or less, and

from about 5 to 30 weight percent of <u>basic surface charge colloidal</u> silica based on the weight of the charge transport polymer <u>silsesquioxane</u>, with optionally at least one additional silane monomer having at least one functional group thereon.

55. (Original) The electrophotographic element of Claim 54 wherein G is selected from halogen, hydroxyl, or C_{1-6} alkoxy groups.

- 56. (Original) The electrophotographic element of Claim 54 wherein the tertiary amine charge transport moiety has an oxidation potential of from about 0.6 to about 1.2 volts versus a standard calomel electrode.
- 57. (Original) The electrophotographic element of Claim 54 wherein d is 1.
- 58. (Previously Presented) The electrophotographic element of Claim 57 wherein X is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; and combinations thereof.
- 59. (Previously Presented) The electrophotographic element of Claim 54 wherein Y is selected from the group consisting of an ester residue -COO- or -OCO-; oxygen; an arylene moiety having up to about 18 carbon atoms; an alkylene moiety having up to about 6 carbon atoms; and combinations thereof.
- 60. (Original) The electrophotographic element of Claim 54 wherein a is from about 0.1 to about 0.9.
- 61. (Original) The electrophotographic element of Claim 54 wherein a is from about 0.15 to about 0.85.
- 62. (Original) The electrophotographic element of Claim 54 wherein a is from about 0.25 to about 0.8.
- 63. (Withdrawn) The electrophotographic element of Claim 54 wherein c is 2.
 - 64. (Original) The electrophotographic element of Claim 54 wherein c is 3.

- 65. (Original) The electrophotographic element of Claim 54 wherein R¹ and R² are independently hydrogen or methyl.
- 66. (Original) The electrophotographic element of Claim 64 wherein G is methoxy.
- 67. (Original) The electrophotographic element of Claim 54 wherein the optional at least one silane monomer is present.
- 68. (Original) The electrophotographic element of Claim 67 wherein the at least one silane monomer is an alkyltrialkoxysilane.
- 69. (Previously Presented) The electrophotographic element of Claim 67 wherein the at least one silane monomer is at least one alkyltrialkoxysilane corresponding to the formula:

$$R^1$$
-Si- $(OR^2)_3$

wherein

R¹ is an aliphatic, cycloaliphatic, or aromatic group containing up to about 18 carbon atoms, and

 R^2 is an alkyl group containing 1 to about 6 carbon atoms.

- 70. (Previously Presented) The electrophotographic element of Claim 69 wherein R¹ is selected from the group consisting of alkyls containing up to about 18 carbon atoms, fluoroalkyl containing up to about 18 carbon atoms, cycloalkyl containing 5 to about 12 carbon atoms, and aryl containing 6 to about 12 carbon atoms.
- 71. (Original) The electrophotographic element of Claim 69 wherein R¹ is an alkyl group containing 1 to about 3 carbon atoms.
- 72. (Original) The electrophotographic element of Claim 69 wherein R¹ is a methyl group.

- 73. (Original) The electrophotographic element of Claim 67 wherein the at least one silane monomer is methyltrimethoxysilane.
- 74. (Previously Presented) The electrophotographic element of Claim 54 wherein A is selected from the group consisting of:

CTM V

CTM VI

$$R_4$$
 R_3
 R_1
 R_2

 R_1 R_2 R_3

CTM VII

CTM VIII

$$R_1$$

CTM IX

CTM X

$$R_1$$
 R_2
 R_2
 R_3

CTM XI

CTM XII

$$R_3$$
 R_4 R_2 R_1

$$R_3$$
 R_4 R_2 R_5

CTM XIII

CTM XIV

$$R_1$$
 R_2
 R_3

CTM XV

CTM XVI

$$R_1$$
 R_2
 R_3

$$R_1$$

CTM XVII

CTM XVIII

$$R_1$$
 R_2
 R_1
 R_2
 R_1
 R_1
 R_2
 R_1
 R_1
 R_1
 R_2
 R_1
 R_2
 R_1
 R_2
 R_2
 R_3
 R_2
 R_1
 R_2
 R_3
 R_2
 R_3
 R_2
 R_3
 R_2
 R_3
 R_3
 R_4
 R_5
 R_7
 R_8

and mixtures thereof, wherein R₁, R₂, R₃, R₄ and R₅ are independently in each CTM structure selected from hydrogen, an alkyl group having 1 to about 6 carbon atoms, or an alkoxy group having 1 to about 6 carbon atoms.

- 75. (Original) The electrophotographic element of Claim 54 wherein the first charge transport layer is an overcoat layer overlying the charge generation layer.
- 76. (Original) The electrophotographic element of Claim 54 wherein the condensed reaction product is prepared in a polar solvent medium.
- 77. (Previously Presented) The electrophotographic element of Claim 76 wherein the polar solvent medium comprises water.
- 78. (Previously Presented) The electrophotographic element of Claim 77 wherein the polar solvent medium further comprises a water-miscible organic solvent.

- 79. (Original) The electrophotographic element of Claim 78 wherein said water-miscible organic solvent is selected from the group consisting of methanol, ethanol, isopropyl alcohol, methyl isobutyl ketone, and mixtures thereof.
- 80. (Original) The electrophotographic element of Claim 54 further comprising a second charge transport layer disposed between said charge generating layer and said first charge transport layer.
- 81. (Original) The electrophotographic element of Claim 80 wherein said second charge transport layer comprises the charge transport polymer.
- 82. (Original) The electrophotographic element of Claim 80 wherein said second charge transport layer comprises the condensed reaction residue of the charge transport polymer.
- 83. (Original) The electrophotographic element of Claim 54 further comprising a barrier layer overlying said electrically conducting layer.
- 84. (Original) The electrophotographic element of Claim 75 wherein said first charge transport layer has a thickness of about 0.5 micron to about 10 microns.
- 85. (Original) The electrophotographic element of Claim 75 wherein said first charge transport layer has a thickness of about 1 micron to about 3 microns.
- 86. (Original) The electrophotographic element of Claim 54 wherein the first charge transport layer has a thickness of up to about 40 microns.